



REMARKS

The present invention relates to a breakaway support assembly for overhead lines and cables that presents a novel advancement over existing support assemblies as it provides an economic release system that serves to prevent damage to the supporting structure and/or other structural components in a line or cable suspension system if the system is subjected to certain forms of stress. As the present invention is not simply an obvious modification or combination of existing art, the references cited by the Examiner may not serve as basis for rejection under §103(a).

Specifically, the Examiner's position that Claims 1-5, as presented in the original application (and claims 6-25 as amended herein), are unpatentable over Papin (U.S. 5,775,035) in light of Andrews (U.S. 5,315,064) and Faller, et al. (U.S. 5,855,443) cannot stand. The overall design and utility of the present invention are distinct from, and not merely a combination of, the prior art. Further, the present invention incorporates several elements that are neither seen in nor suggested by the references cited by the Examiner.

Faller teaches the use of a plurality of mounting members and associated shearing plates in order to create a breakaway assembly for mounting a structure to a fixed support. Faller's device was designed to receive horizontal and moment forces as would be generated by the impact of a vehicle with a roadside sign post. Andrews discloses a suspended line breakaway device that is, in essence, a connection system that allows one portion of a line to slidably release from the other in the event that certain types of stress are applied to low-voltage or pneumatic interconnecting lines. Papin discloses a plastic pole system that includes an intrinsic means for attaching support members.

The express purpose of the Andrews invention is to *non-destructively* disconnect two ends of a low-voltage cable or pneumatic lines. (See column 3 line 38; column 11 line 17; and column 9 line 17). It is a further express goal of the Andrews device to provide a mechanism by which one end of the cable, which has been subject to excessive force, remains suspended. (See column 1 line 28). In essence, Andrews discloses a recyclable system whereby the line connection may be restored simply by reconnecting the two portions of the assembly (indeed, Andrew's primary embodiment is designed to insure that the energized section of the line assembly remain suspended well above the ground should the line connection be broken). Faller, on the other hand, discloses a single use coupling that is expended in the event that it is subjected to the requisite level of stress. In this regard, Andrews and Faller contemplate different purposes (and means for accomplishing these purposes) and teach distinctly away from one another. Therefore there is no suggestion to combine the two references as the purpose of each invention contradicts the other.

The use of a breakaway coupling, in of itself, can be seen in the prior art. For example, Farrell U.S. 6,516,573 sets forth a breakaway coupling integrated into the structure of a street sign that is designed to shear or break off upon impact. The weakened area, accomplished by reducing the cross-sectional area of the post, is the structural equivalent of the weak link in the present invention. Strizki U.S. 5,596,845 discloses the use of a breakaway coupling which "includes a weakened section to facilitate breaking thereof responsive to a lateral force exerted adjacent to the lower end of the vertical post assembly." Therefore, as illustrated by the prior grants, it is the

mechanism and components of the coupling system, along with its particular use, that provide the novelty and non-obviousness of the present invention.

The present invention utilizes a stranded rod as the weak link in order to effect the breakaway methodology. This type of link was chosen due to the suitability of the characteristics yielded by a stranded body. Faller does not use a stranded link, rather, Faller teaches the use of a threaded rod (*See* Faller element 36 in drawing Nos. 2, 6, 7 and 8 and disclosed as being present in all embodiments). The apparent need for a threaded rod establishes that Faller discloses, and solely contemplates, the use of a solid rod for element 34. Indeed, Faller does not even suggest using a stranded link as the threads are integral to the manner in which Faller secures the link to the breakaway structure. It is well established in the relevant art that it is generally impracticable to generate a threaded stranded body. In addition, none of the other references, i.e., Andrews, Papin or Megahan, utilize an even remotely analogous weak link. Therefore, none of the foregoing references, either alone or in concert, teach the use of a stranded link as is found in the present invention.

Further, Faller discloses an extremely different breakaway coupling. Faller's device requires two or more rods, and, ultimately upon sufficient impact, the first rod is broken due to a combination of tensile and shearing stresses, the second and successive rods give way upon the generation of a shearing plane created by the upper and lower surfaces of the breakaway assembly. Indeed claim No. 1 of Faller recites the requisite elements of (1) shearing plates and a (2) a plurality of mounting members. Andrews discloses a body means, latching means and trigger means (*See generally* columns 3, 4, 5 and 6) which form a complex that is designed to release when subjected to a pre-

determined level of stress. The present invention does not require any of the foregoing Faller or Andrews elements and is not bound by any of these limitations. In contrast, McDonald discloses a breakaway coupling with one stranded rod which will yield upon the application of tensile stresses. More importantly, the concepts employed in Faller, i.e., the use of a sheer plate breakaway feature, are not suited, and will not properly function in the vertical plane, as will the McDonald apparatus.

In addition, the Andrews invention is only suited to low-voltage applications as the device discloses a design in which three conductors converge, in close proximity, at the same terminus. Such a design would not comply with applicable National Electric Safety Code[®] regulations for use in higher voltage applications. On the contrary, McDonald's invention may be used for both low and high voltage applications. As the intrinsic design of Andrews is not suited to the full range of applications as is the instant invention, a combination of Faller (which would not serve to increase the range of applications) and Andrews would not yield the McDonald device.

The references of Papin and Megahan, either alone or in combination with Faller and/or Andrews would not result in an apparatus which provides a single use breakaway coupling that employs a stranded weak link. Neither Papin nor Megahan teach nor suggest the use of a stranded breakaway link, stabilizing assembly, or any other components of the breakaway assembly as seen in the present invention.

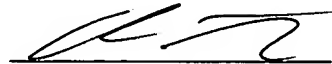
CONCLUSION

For the foregoing reasons and in view of the above amendment, the Applicant submits that the apparatus disclosed and claimed in the present invention is not taught by any of the references of record, taken either alone or in combination, and all grounds of

rejection and objection have been avoided and/or traversed. The Examiner is therefore respectfully requested to enter the amendment herein, reconsider and withdraw all objections and rejections and allow Claims 6-25, as amended, in this application.

Respectfully submitted,

Date: 8/24/01



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